**The Three States of Matter**

Classification

What is matter? Matter is everywhere! The three states of matter are solids, liquids and gases. All of the states of matter are made up of molecules which are made up of atoms which are the smallest thing on Earth. You would need a very powerful microscope to see an atom. Sir Earnest Rutherford was the first person to split the atom. Solids, liquids and gases all have properties which are volume, mass and shape.

Solids

Solids are very easy to identify, unlike gases. Solids have a fixed shape which means they cannot be compressed. They have a definite mass. Solids also have a definite volume. Some solids can melt and become a liquid, for example ice can melt into water. Why is sand a solid, even though it can be poured? It is because the grains are so tiny, they can be poured into the shape of their container. This is the same as sprinkles, milo and salt. Their particles are packed tightly together.

Liquids

Liquids have no fixed shape so they take the shape of their container or surroundings. They have a fixed volume. Liquids have a definite mass. Their atoms slide past each other. They can be frozen or heated. For example, water can be heated to form steam, or water can be frozen into ice. Liquids cannot be compressed easily.

Gases

Gases move freely. They have no fixed shape, nor mass or volume. Gases can be easily compressed. Some gases are toxic.

Summary

Matter is everywhere. Matter can change by freezing or heating. I think matter is interesting because everything can be grouped into solids, liquids and gases!

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